VPDES PERMIT FACT SHEET

This document gives pertinent information concerning the reissuance of the VPDES permit listed below. This permit is being processed as a Minor, Municipal permit. The effluent limitations contained in this permit will maintain the Water Quality Standards of 9 VAC 25-260 et seq. The discharge results from the operation of a wastewater treatment facility that serves the town and surrounding commercial area. This permit action consists of updating Part I limitations, monitoring requirements and special conditions.

1. Facility Name and Address: Stony Creek WWTF
12521 Setzer Road
Stony Creek, VA 23882

SIC Code: 4952

2. Permit No. VA0062669
Existing Permit Expiration Date: May 1, 2010

3. Owner Contact: Name: Robert Gunnell, Sussex Service Authority
Title: Executive Director
Telephone No: (804) 834-8930
Address: 4385 Beef Steak Road
Waverly, VA 23890

4. Application Complete Date: 9/14/2010
Permit Drafted By: Janine Howard Date: 6/24/2010, 9/15/2010
Piedmont Regional Office
Reviewed By: Emilee Carpenter Date: 8/16/2010
Curt Linderman Date: 11/22/2010
Public Comment Period Dates: 3/30/2011 – 5/2/2011

5. Receiving Stream Name: Stony Creek
River Mile: 5ASTO0001.10
Basin: Chowan and Dismal Swamp
Subbasin: Chowan River
Section: 2b
Class: III
Special Standards: None

7-Day, 10-Year Low Flow (7Q10): 0.28 MGD
1-Day, 10-Year Low Flow (1Q10): 0.23 MGD
30-Day, 5-Year Low Flow (30Q5): 1.5 MGD
30-Day, 10-Year Low Flow (30Q10): 0.72 MGD
7Q10 High Flow months* : 19 MGD
1Q10 High Flow months* : 15 MGD
Harmonic Mean Flow (HM) : undefined
Tidal? NO
On 303(d) list? NO

*The high flow months are January through April.

See Attachment A- Flow Frequency Memo

6. Operator License Requirements: The recommended attendance hours by a licensed operator and the minimum daily hours that the treatment works should be manned by operating staff are contained in the Sewage Collection and Treatment Regulations (SCATS) 9 VAC 25-790-300. A Class III licensed operator is required for the facility.

7. Reliability Class: Reliability is a measurement of the ability of a component or system to perform its designated function without failure or interruption of service. The reliability classification is based on the water quality and public health consequences of a component or system failure. The permittee is required to maintain Class II Reliability for the existing facility.

8. Permit Characterization:
( ) Private ( ) Federal ( ) State (X) POTW ( ) PVOTW

( ) Possible Interstate Effect ( ) Interim Limits in Other Document

9. Provide a brief description of the wastewater treatment system.

Discharge Description

OUTFALL NUMBER	DISCHARGE SOURCE	TREATMENT	FLOW
001	Residential and commercial	Mechanical screening, two-stage aerated lagoon, filtration, chlorination, dechlorination, cascade step aeration	0.040 MGD

See Attachment B- Plant Flow Diagram

10. Sewage Sludge Use or Disposal: The treatment system consists of two lagoons that operate in series. Any sludge that is produced will be stored in the lagoons until such time as they require emptying. Once the sludge storage capacity is reached, the sludge will be removed from the lagoons in stages via the bypassing of the first lagoon to the next while sludge removal takes place on the first lagoon. Once one lagoon is emptied it will be put back into operation and the second lagoon will be bypassed while sludge is being removed. Sludge will be disposed of via pump-and-haul (using VA-40) to Black Swamp WWTP (Waverly, VA) where it will be aerobically digested and dewatered. This will not require the temporary shut-down of the facility as one lagoon will be in operation at all times. Operators regularly check the sludge depth in the lagoons and as of September 2010 the levels are low. The 2008 inspection report (see Attachment E) indicates that there is one and a half feet of freeboard in the lagoons.

See Attachment C: Sludge Management Plan Description (Cover Letter to Sludge Application)

See Permit Part I.B.13 Sludge Use and Disposal special condition for a revised Sludge Management Plan (SMP) requirement. Given the excessive high flows that the facility has been receiving (see Fact Sheet Item 19.q for clarification), the revised SMP shall pay particular attention to the available freeboard required to carry out a SMP that relies on sequentially taking one of the two lagoons out of service. The revised SMP shall include a value of sufficient freeboard to be maintained that is projected to contain the expected flows in one lagoon and maintain treatment levels, for the duration of the time that the second lagoon is out of service.

11. Discharge Location Description*:* This facility discharges to Stony Creek.
Name of USGS topographic map: Stony Creek Quad (039B)

See Attachment D- Topographic Map, Stony Creek Quadrangle (39B)

12. Material Storage: Chlorination and dechlorination (sodium sulfite) tablets and granular chlorine used to dose the disk filter are stored in their original containers inside the control building. The storage area is adequately ventilated.

See Attachment E- Site Inspection Report

13. Ambient Water Quality Information

The Stony Creek WWTF outfall discharges to Stony Creek at rivermile 5ASTO001.10. Ambient monitoring station 5ASTO001.20 (Stony Creek at Route 301 South bridge) was selected because the discharge outfall is 0.1 mile downstream of this station. Water quality data from this station reflect the ambient water quality of the stream prior to the confluence with the discharge. This data was used to develop the wasteload allocations (see item #16).

During the 2010 305(b)/303(d) Water Quality Assessment, Stony Creek from the confluence with Galley Swamp to its mouth was assessed as a Category 5A water ("A Water Quality Standard is not attained. The water is impaired or threatened for one or more designated uses by a pollutant(s) and requires a TMDL (303d list).") Stony Creek is impaired of the Fish Consumption Use due to mercury exceedances in flier sunfish and spotted bass. The Aquatic Life, Recreation, and Wildlife Uses are considered fully supporting. The facility is not currently addressed in any approved TMDL.

The facility does not discharge into the Chesapeake Bay Watershed; therefore, it is not included in the Chesapeake Bay TMDL.

See Attachment F- 5ASTO001.10 data

14. Antidegradation Review & Comments: Tier 1 __X__ Tier 2 _____ Tier 3 _____

The State Water Control Board's Water Quality Standards includes an antidegradation policy (9 VAC 25-260-30). All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The antidegradation review begins with a Tier determination. Stony Creek is determined to be a Tier 1 waterbody. This determination is based on a listing on the 2004 Total Maximum Daily Load (TMDL) Priority list as impaired of the Aquatic Life use support goal due to pH violations and of the Recreation Use due to fecal coliform violations. The violations occurred at the Route 301 bridge. Stony Creek was delisted in the 2006 cycle but remains a Tier 1 water.

15. Site Inspection Date: December 20, 2007 Performed by: Charles Stitzer
Sampling Inspection Date: September 14, 2010

See Attachment E- Site Inspection Report

16. Effluent Screening & Limitation Development:

See Attachment F for a copy of the facility pH data (DMR data), ambient monitoring station 5ASTO001.20 data, effluent data, a MSTRANTI data source report, and printouts of the MSTRANTI (Version 2) and STATS.EXE (version 2.04) for TRC and Ammonia.

Table 16.I. Basis for 0.04 MGD Effluent Limitations

PARAMETER	BASIS FOR LIMIT	DISCHARGE LIMITS			
		MONTHLY AVG	WEEKLY AVG	MIN	MAX
001 Flow	NA	NL	NA	NA	NL
002 pH	5	NA	NA	6.0 s.u.	9.0 s.u.
003 BOD_5	1, 4	30 mg/l	45 mg/l	NA	NA
004 TSS	1	30 mg/l	45 mg/l	NA	NA
005 TRC	2	0.064 mg/l	0.079 mg/l	NA	NA
007 DO	4	NA	NA	5.5 mg/l	NA
157 TRC* contact	3	NA	NA	1.0 mg/l	NA
213 TRC* contact	3	NA	NA	0.60 mg/l	NA
120 *E.coli*	2, 3	NL	NA	NA	NA

1. Technology –based limits (Federal Effluent Guidelines)
2. Water Quality-based limits (see Attachment F- Stats.exe for TRC)
3. Best Engineering Judgment (BEJ) (Consistent with 40 CFR 125.3(d) criteria)
4. Stream Sanitation Analysis (5/3/1986- see Attachment G)
5. State Water Quality Standards

*157 and 213 TRC samples are taken prior to dechlorination, they are not final effluent (see Part I.B. Additional Chlorine Limitations and Monitoring Requirements)

NA = Not Applicable
NL = No Limit

Effluent testing reported on the Form 2A (see Attachment F) consists of: pH, flow, BOD_5 and TSS, and fecal coliform bacteria. The information reported on the application was supplemented by larger data sets in order to determine appropriate entries for each effluent parameter in MSTRANTI. Effluent pH percentiles were calculated using three years of DMR data. Discharge flow entered was the design flow of 0.040 MGD. The 90% temperature (annual) used in MSTRANTI was 24.18 ^{o}C. This was calculated using twelve temperature values from 2007-2008 that were submitted with the application. MSTRANTI entries for the stream information were calculated using ambient stream data from monitoring station 5ASTO001.20. Numeric permit limitation calculations utilize conservative low flow ambient conditions to represent circumstances in which the effluent has the greatest potential to impact the receiving stream. MIX.exe was used to determine that a 100% mix was appropriate in this situation.

MSTRANTI was used to determine the maximum wasteload allocations (WLAs) that maintain water quality standards in the receiving stream for each parameter. The wasteload allocations for TRC and ammonia were used in Stats.exe to determine a limit that would be protective of Water Quality Standards. No limit for ammonia was necessary.

TRC: Chlorine is a toxic pollutant purposefully introduced into the wastewater. Consequently, a reasonable potential analysis is not necessary to establish the need for a limitation. Per GM00-2011, a chlorine limitation was forced using a datum of 20,000 ug/L. The resulting limitation calculated using Stats.exe is shown in Table 16.I. This limit is more

stringent than the limit in the 2005 permit. This is due to lower 7Q10 flows as determined by the flow frequency analysis which led to more a stringent wasteload allocation for TRC.

Fecal coliform data was submitted with the application; the data are displayed in Attachment F. The maximum value reported on Form 2A was 500N/100ml. The receiving waters were listed for non-attainment for fecal coliform bacteria in Category 5 of the approved 2004 303(d) list. Stony Creek is not listed for bacteriological concerns in the 2010 305(b)/303(d) Water Quality Assessment. However, the fecal coliform limit used for shellfish waters or waters for which there is a bacteriological TMDL in 200 N/100ml. Due to the high maximum fecal coliform value reported for the effluent (500 N/100ml) and the former non-attainment in the receiving stream, bacteriological monitoring is required by this permit. The bacterial Water Quality Standard for Class III freshwaters is in terms of *E. coli*, therefore monitoring is for *E. coli*.

Separate human health (HH) standards apply to waters that are designated as "Public Water Supplies (PWS)" and "all other surface waters." The receiving stream is not designated as a PWS; consequently, the HH (PWS) standards are not applicable. Rather, reasonable potential analyses of this discharge will apply HH criteria for "all other surface waters"

Based on design flow of the treatment facility (for facilities with design flows equal to or greater than 0.040 MGD but less than 1.0 MGD, as recommended by Water Permit Managers' June 10, 2003 meeting), the permittee is required to perform expanded effluent testing for the substances noted on Attachment A of the VPDES permit and submit the results to DEQ within one year of the permit issuance date. Measurable concentrations of pollutants with associated toxic or human health water quality criteria will be analyzed to determine the need for a water-quality based limit and pollutants that demonstrate a reasonable potential to violate Water Quality Standards (WQS) and will be assigned a limitation based on the results of STATS.exe. Should the results trigger a limit for a certain parameter, the permit effluent limits will be modified accordingly at such time (see Item 19 k. and l).

The discharge point is to the Chowan River Basin (and not the Chesapeake Bay Watershed); therefore, the facility is not subject to Chesapeake Bay nutrient regulations or the Chesapeake Bay TMDL.

17. Basis for Sludge Use & Disposal Requirements:

Not applicable, as this facility does not land apply sludge. At such time as sludge storage in the lagoons becomes limited, the sludge will be removed via pump-and-haul to Black Swamp WWTP where it will be aerobically digested and dewatered. A revised sludge management plan will be developed as per permit special condition Part I.C.13 Sludge Use and Disposal. (See Item #10 and Attachment C- Sludge Application Cover Letter)

18. Antibacksliding Statement:

No limits have been reduced or removed during this permit reissuance.

19. Special Conditions:

a. B.1 & 2 : Additional Chlorine Limitations and Monitoring Requirements
Rationale: Required by Sewage Collection and Treatment Regulations, 9VAC25-790 and Water Quality Standards 9VAC25-260-170, Bacteria; other recreational waters. Also, 40 CFR 122.41(e) requires the permittee, at all times, to properly operate and maintain all

facilities and systems of treatment in order to comply with the permit. This ensures proper operation of chlorination equipment to maintain adequate disinfection.

b. C.1: 95% Capacity Reopener
Rationale: Required by VPDES Permit Regulation, 9VAC25-31-200 B 4 for all POTW and PVOTW permits.

c. C.2: Indirect Dischargers
Rationale Required by VPDES Permit Regulation, 9VAC25-31-200 B 1 and B 2 for POTWs and PVOTWs that receive waste from someone other than the owner of the treatment works.

d. C.3: CTC, CTO Requirement
Rationale: Required by Code of Virginia § 62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790.

e. C.4: O&M Manual Requirement
Rationale: Required by Code of Virginia § 62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790; VPDES Permit Regulation, 9VAC25-31-190 E.

f. C.5: Licensed Operator Requirement
Rationale: The VPDES Permit Regulation, 9VAC25-31-200 C and the Code of Virginia § 54.1-2300 et seq, Rules and Regulations for Waterworks and Wastewater Works Operators (18VAC160-20-10 et seq.), require licensure of operators.

g. C.6: Reliability Class
Rationale: Required by Sewage Collection and Treatment Regulations, 9VAC25-790 for all municipal facilities.

h. C.7: Closure Plan
Rationale: Code of Virginia § 62.1-44.19 of the State Water Control Law. This condition establishes the requirement to submit a closure plan for the wastewater treatment facility if the treatment facility is being replaced or is expected to close.

i. C.8: Sludge Reopener
Rationale: Required by VPDES Permit Regulation, 9VAC25-31-220 C for all permits issued to treatment works treating domestic sewage.

j. C.9: Total Maximum Daily Load (TMDL) Reopener
Rationale: Section 303(d) of the Clean Water Act requires that total maximum daily loads (TMDLs) be developed for streams listed as impaired. This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL approved for the receiving stream. The re-opener recognizes that, according to section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan, or other wasteload allocation prepared under section 303 of the Act.

k. C.10: Water Quality Criteria Monitoring
Rationale: State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. States are required to review data on discharges to identify actual or potential toxicity problems, or the attainment of water quality goals, according to 40 CFR Part 131, Water Quality Standards, subpart 131.11. To ensure that water quality criteria are maintained, the

permittee is required to analyze the facility's effluent for the substances noted in Attachment A of this VPDES permit.

The permittee must submit Attachment A- Water Quality Criteria Monitoring form within one year of permit reissuance. Attachment A is supplied with the permit at the end of Part I.

l. **C.11: Water Quality Criteria Reopener**
Rationale: VPDES Permit Regulation, 9VAC25-31-220 D requires effluent limitations to be established which will contribute to the attainment or maintenance of water quality criteria.

m. **C.12: Compliance Reporting**
Rationale: Authorized by VPDES Permit Regulation, 9VAC25-31-190 J 4 and 220 I. This condition is necessary when pollutants are monitored by the permittee and a maximum level of quantification and/or a specific analytical method is required in order to assess compliance with a permit limit or to compare effluent quality with a numeric criterion. The condition also establishes protocols for calculation of reported values.

n. **C.13: Sludge Use and Disposal**
Rationale: VPDES Permit Regulation, 9VAC25-31-100 P; 220 B 2; and 420 through 720, and 40 CFR Part 503 require all treatment works treating domestic sewage to submit information on sludge use and disposal practices and to meet specified standards for sludge use and disposal.

See Fact Sheet Item 10 for specific details required to be included in the revised Sludge Management Plan.

o. **C.14: Materials Handling/Storage**
Rationale: 9 VAC 25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia § 62.1-44.16 and 62.1-44.17 authorizes the Board to regulate the discharge of industrial waste or other waste.

p. **C.15: Ground Water Monitoring**
Rationale: State Water Control Law § 62.1-44.21 authorizes the Board to request information needed to determine the dicharge's impact on State waters. Ground water monitoring for parameters of concern will indicate whether possible lagoon seepage is resulting in violations of the State Water Control Board's Ground Water Standards.

See Attachment H- Groundwater Evaluation

q. **C.16 Inflow and Infiltration (I&I) Study**
Rationale:
Best Engineering Judgment based on the history of high flows from the facility. Discharge Monitoring Report (DMR) data showing consistent high effluent flows indicates that I&I is a factor at the facility. For the months of December 2009 and January-March 2010, the facility reported monthly average flows in excess of their permitted design flow, triggering Permit Special Condition Part I.C.1 95% Capacity Reopener. A plan of action is required to be submitted to DEQ within 90 days from the third consecutive month for which the flow reached 95% of the design capacity. A Warning Letter dated May 20, 2010 was issued requesting the plan of action by June 8, 2010. The Plan of Action was never submitted. In addition to monthly average flow exceedances of the design capacity (0.040 MGD), DMR data given in Fact Sheet Attachment F indicate that the facility flows are routinely close to reaching the 95% capacity value for this facility of 0.038 MGD. As the Plan of Action was never submitted and high flows are a persistent problem at the facility, the I&I study is required by this permit.

r. **C.17: Pretreatment Rationale:** VPDES Permit Regulation, 9VAC25-31-730 through 900, and 40 CFR Part 403 require certain existing and new sources of pollution to meet specified regulation.

s. **Part II, Conditions Applicable to All Permits**
Rationale: VPDES Permit Regulation, 9VAC25-31-190 requires all VPDES permits to contain or specifically cite the conditions listed.

20. Changes to Permit:

Changes to Permit Cover Page:
Cover page Boilerplate verbiage revised as per January 27, 2010 VPDES Permit Manual, Section MN-1. Signatory updated to reflect that the Water Permit Manager will sign the 2011 permit.

Table I. Changes to Part I. B* Effluent Limits and Monitoring Requirements:

Parameter Changed	**Monitoring Requirement Changed**		**Effluent Limits Changed**		**Reason for Change:**
	From	To	From	To	
TRC mg/L Avg weekly Avg monthly	 1/month 1/month	 1/month 1/month	 0.085 0.069	 0.079 0.064	Water quality limit based on chronic toxicity.
TSS mg/L Avg weekly Avg monthly	 1/month 1/month	 1/month 1/month	 6.8 kg/d 4.5 kg/d	 6800 g/d 4500 g/d	GM 06-2016 requires masses to be expressed as whole numbers and two significant figures.
BOD_5 mg/L Avg weekly Avg monthly	 1/month 1/month	 1/month 1/month	 6.8 kg/d 4.5 kg/d	 6800 g/d 4500 g/d	GM 06-2016 requires masses to be expressed as whole numbers and two significant figures.
E. Coli (N/100mL)	---	4/Month (10am-4pm)	---	NL	BEJ- *E. Coli* monitoring added to permit

*Note: At the time of the 2011 reissuance, Part I.B., Final Effluent Limitations and Monitoring Requirements, of the 2005 permit is active. This permit reissuance consists of the 2005 Part I.A. page being removed and the 2005 Part I.B page being updated and renamed Part I.A.

Table II. Changes to Permit:

From:	**To:**	**Reason:**
Part I.A. Interim Effluent Limitations and Monitoring Requirements	[deleted]	Interim limits page no longer needed.
Part I.B. Final Effluent	Part I.A. Effluent Limitations	Part I.B. renamed and limits

From:	To:	Reason:
Limitations and Monitoring Requirements	and Monitoring Requirements	updated (see Table I for detail)
---	Part I.A.1.c	Added to reflect significant digits as per GM 06-2016.
Part I.B.1.a	Part I.A.1.a	Changed to read: see Part I.B.1
NL = No Limit, monitoring only NA = Not Applicable	NL = No Limitation; monitoring and reporting are required NA = Not Applicable	Clarified to include the reporting requirement.
Part I.C. Additional Limitations and Monitoring Requirements	Part I.B. Additional Limitations and Monitoring Requirements	Re-lettering reflects the presence of a single effluent limit tier (Part I.A) in this permit cycle; verbiage updated per January 27, 2010 Permit Manual guidance.
Part I.E. Other Requirements or Special Conditions	Part I.C. Other Requirements or Special Conditions	Numbering changed due to tier (Part I.B.) removal.
Part I. E.1. 95% Design Capacity Reopener	Part I.C.1. 95% Capacity Reopener	Language updated in accordance with January 27, 2010 VPDES Permit Manual, Section MN-3. Address removed.
Part I.E.2. Indirect Dischargers	Part I.C.2. Indirect Discharges	Labeling update.
Part I.E.3. CTC, CTO Requirements	Part I.C.3. CTC, CTO Requirement	Verbiage updated to reflect January 27, 2010 VPDES Permit Manual, Section MN-3
Part I.E.4. Operation and Maintenance Manual Requirement	Part I.C.4 Operation and Maintenance Manual Requirement	Verbiage updated to reflect January 27, 2010 VPDES Permit Manual, Section MN-3
Part I.E.5. Proper Storage of Materials	Part I.C.14 Materials Handling/Storage	Verbiage updated per January 27, 2010 VPDES Permit Manual, Section IN-3
Part I.E.6 Reliability Class	Part I.C.6 Reliability Class	Labeling update.
Part I.E.7 TMDL Reopener	Part I.C.9 TMDL Reopener	Labeling update.
---	Part I.C.7. Closure Plan	Added as per January 27, 2010 VPDES Permit Manual, Section MN-3.
Part I.E.8 Operator Licensure	Part I.C.5 Licensed Operator Requirement	Labeling update.
Part I.E.9 Sewage Sludge Reopener	Part I.C.8 Sludge Reopener	Labeling update.
Part I.E.10 Sludge Management Plan	Part I.C.13 Sludge Use and Disposal	Verbiage updated per January 27, 2010 VPDES Permit Manual, Section MN-3 to reflect the need for a revised Sludge Management Plan.
---	Part I.C.10 Water Quality Criteria Monitoring	Added as per January 27, 2010 VPDES Permit Manual, Section MN-3.
Part I.E.11 Compliance Reporting a-d.	Part I. C.12 Compliance Reporting a-e.	Verbiage and QLs updated as per January 27, 2010 VPDES Permit Manual and section e.

From:	To:	Reason:
		added in accordance with PRO staff decision 6/29/2010.
---	Part I.C.11 Water Quality Criteria Reopener	Added as per January 27, 2010 VPDES Permit Manual, Section MN-3.
Part I.E.12 Ground Water Monitoring Plan	Part I.C.15 Ground Water Monitoring	Labeling and verbiage update per January 27, 2010 VPDES Permit Manual, Section MN-3.
Part I.E.13. Industrial User Survey Requirement	Part I.C.17. Pretreatment Program	Removed per PRO permitting decision.
---	Part I.C.16 Inflow and Infiltration Study	BEJ
Part I.E.13	Part I.C.17. Pretreatment Program	Language and labeling update.

21. Variances/Alternate Limits or Conditions:

Based on design flow of the treatment facility (for facilities with design flows equal to or greater than 0.040 MGD but less than 1.0 MGD, as recommended by Water Permit Managers' June 10, 2003 meeting) the permittee is required to perform expanded effluent testing for the substances noted on Attachment A of the VPDES permit and submit the results to DEQ within one year of the permit issuance date. This requirement is in lieu of the required submission of Attachment A with the permit application. See Item 19.k.

22. Regulation of Users: 9VAC25-31-280 B 9: Not applicable, this facility is a POTW.

23. Public Notice Information required by 9VAC25-31-280 B:

Publishing Newspaper: *Sussex-Surry Dispatch*
Comment period: 3/30/2011- 5/2/2011
Date of first publication- 3/30/2011
Date of second publication- 4/6/2011

All pertinent information is on file and may be inspected, and copied by contacting Janine Howard at Virginia DEQ-Piedmont Regional Office, 4949-A Cox Road, Glen Allen VA 23060, (804) 527-5046, e-mail Janine.howard@deq.virginia.gov.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

24. Additional Comments:

Previous Board Action: None

Staff Comments:

a. Stony Creek was removed from the 303(d) list in 2006. It no longer has a TMDL planned.

b. Reduced monitoring was not considered due to non-compliance with permit conditions (NOV dated 8/19/2010, late application, non-compliance with effluent limits).

c. The 2010 permit fees for this facility have been paid.

d. This discharge is in conformance with the existing planning documents for the area.

e. EPA has waived the right to comment and/or object to the adequacy of the draft permit.

f. By letter dated September 27, 2010, the Virginia Department of Health stated that they had no objections to the permit application. VDH has waived the right to review the draft permit.

g. This discharge is not controversial. However, due to a late application (due 11/2/2009, complete 9/14/2010) the facility has been discharging without a permit since it expired on May 1, 2010. The facility was issued an NOV dated August 19. 2010 citing the non-receipt of the application. Additionally, DMRs were submitted for May, June, and July indicating discharges from Stony Creek WWTP without a valid permit.

   The NOV also addressed two non-compliant effluent concentrations above the 30 mg/L BOD_5 permit limit for the February (34.50 mg/L) and March (34.00 mg/L) 2010 DMR submittal.

h. The permit expired due to the fact that a complete application was not submitted in a timely manner. The application was due on 11/2/2009 and was not received in full and complete until 9/14/2010.

i. The permit is not a member of the Virginia Environmental Excellence Program (VEEP).

j. The permittee has been enrolled in e-DMR since 4/28/2006. They are not active users of the system. An updated e-DMR application was received at PRO on April 1, 2011 and will be processed following permit reissuance.

k. The 2005 permit included a Schedule of Compliance for TSS (Part I.D.), and a Part I.B limitations page featuring more stringent TSS concentration and loading limits based on the issuance of a CTO for an upgraded facility. A letter was submitted to DEQ on June 9, 2006 by Sussex Service Authority stating:

   "I am writing in regards to page 3 or 8, item D in the Stony Creek discharge permit. The treatment facility has an Aqua-Aerobics AquaDisk cloth-media filter on the final effluent. The filter was installed the first part of 2000 and had some problems after the installation and did not run on a regular basis for a few years. In the later part 2004 the filter was put online for continuous operation. The plant has not exceeded a TSS of 20mg/l since November of 2004. Most of the results have been below 10mg/l."

DEQ issued a DMR and transmittal letter on June 13, 2006, reflecting the installation of the filtration equipment to reduce suspended solids in the effluent. The DMR reflected the limitations shown in Part I.B of the 2005 permit. It does not appear that a Certificate to Construct or a Certificate to Operate was issued for the filter installation in 2000 or subsequently.

l. This facility is not subject to coverage under 9 VAC 25-151 General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity (Sector T) due to a design flow of less than 1.0 MGD.

Public Notice Comments:

No comments were received during the public comment period. No changes have been made to the draft permit as a result of the comment period.

Other Agency Comments:

VDH Office of Drinking Water- Letter dated September 27, 2010 states:

- The raw water intake for the City of Norfolk waterworks is located approximately 48 miles downstream of the discharge. This should be a sufficient distance to minimize the impacts of the discharge. We recommend a Reliability Class of II for this facility.

  Note: Reliability Class II is presently required of this facility.

Threatened and Endangered Species Coordination:

As required by the 2007 MOU between VDEQ, VDGIF, VDCR, and USFWS, a threatened and endangered species screening was conducted for this permit reissuance. The T&E review was performed in accordance with GM 07-2007. The facility was on the 2010 DCR Threatened and Endangered Species Coordination list and a request for review was submitted to DCR via the Natural Heritage Explorer webpage. DCR responded in a letter dated April 6, 2010 and recommended the use of UV/ozone to replace chlorination and utilization of new technologies as they become available to improve water quality. DCR also recommended coordination with VDGIF and USFWS.

DEQ will forward DCR's concerns regarding the use of UV disinfection rather than chlorination and ask the owner to consider this as part of any major facility expansion/upgrade. Currently, the owner has no construction plans. DEQ has not forced existing sewage treatment plants to retro-fit with UV disinfection equipment, as proper chlorine disinfection followed by dechlorination has been proven effective for meeting currently approved WQS criteria. This facility includes both tablet chlorination and dechlorination, and will be required to maintain a monthly average TRC effluent concentration of 0.064 mg/L or less. Numeric TRC effluent concentrations are established to maintain aquatic life beyond the allocated mixing zone.

The wastewater treatment facility is not being upgraded or expanded, and therefore, the reissuance of this permit is not expected to pose any new impacts to threatened and endangered species.

A T&E species screening was conducted using VDGIF's Fish and Wildlife Service for aquatic species. The screening revealed the following confirmed hits within a two mile radius of the outfall:

Species	Stream Name	Federal Endangered	Sate Endangered	State Threatened
Logperch, Roanoke	Nottoway River, Stony Creek	X	X	
Wedgemussel, dwarf	Nottoway River	X	X	
Pigtoe, Atlantic	Nottoway River			X

DGIF and USFWS coordination was initiated 11/12/2010. A response from DGIF was received on 2/17/2011 recommending UV disinfection to replace the use of chlorine disinfection. See above for the discussion in response to the same recommendation from DCR.

A recommendation was also made regarding the use of proposed EPA ammonia values for waters with mussels (in this permit and future VPDES permits). The effluent limitations in this permit are designed to be protective against aquatic toxicity and Virginia Water Quality Standards. A reasonable potential analysis for ammonia was performed as part of this reissuance and no limit was required to be protective of water quality (see Attachment F). DGIF concludes that "provided the project adheres to the effluent limitations and monitoring requirements specified in the permit, we do not anticipate the re-issuance of this existing permit to result in adverse impact to this designated T&E waters or its associated species."

See Attachment J – Threatened and Endangered Species Coordination

25. 303(d) Listed Segments (TMDL):

During the 2010 305(b)/303(d) Water Quality Assessment, Stony Creek from the confluence with Galley Swamp to its mouth was assessed as a Category 5A water ("A Water Quality Standard is not attained. The water is impaired or threatened for one or more designated uses by a pollutant(s) and requires a TMDL (303d list).") Stony Creek is impaired of the Fish Consumption Use due to mercury exceedances in flier sunfish and spotted bass. The Aquatic Life, Recreation, and Wildlife Uses are considered fully supporting. The facility is not currently addressed in any approved TMDL.

The facility does not discharge into the Chesapeake Bay Watershed; therefore, it is not included in the Chesapeake Bay TMDL.